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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
LY, NGHI H	

ART UNIT	PAPER NUMBER
2686	

DATE MAILED: 08/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/046,466	MIERNIK ET AL.	
	Examiner	Art Unit	
	Nghi H. Ly	2686	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05/03/2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-55* is/are pending in the application.

4a) Of the above claim(s) *49-55* is/are withdrawn from consideration.

5)☒ Claim(s) *38* is/are allowed.

6)☒ Claim(s) *1-7,9-20,22-29,33-37,39-42 an 44-48* is/are rejected.

7)☒ Claim(s) *8,21,30-32 and 43* is/are objected to.

8)☐ Claim(s) *49-55* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *03/01/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1, 2, 4-6, 10, 12, 14, 15, 17-19, 23, 27, 28, 34, 39, 40, 44 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anvekar et al (US 6,603,968) in view of Connolly et al (US 5,657,375).

Regarding claims 1, 14 and 27, Anvekar teaches a method for identifying a wireless serving node for a mobile unit (see column 2, lines 41-55, "identifying"), comprising: receiving a wireless registration request at a control

node for a wireless serving node cluster (see fig.5, connection between network 130, 520-B and 110B, and see column 2, lines 41-55, "identification information"), determining a control node associated with the registration request by using a mobile unit identifier in the registration request (see column 2, lines 41-55, the teaching of Anvekar inherently teaches a mobile unit identifier), and generating a wireless registration response containing an identifier for the control node associated with the registration request if the control node is not the control node associated with the registration request (also see column 2, lines 41-55, "local number").

Anvekar does not specifically disclose determining a control node associated with the registration request by using an algorithm.

Connolly teaches determining a control node associated with the registration request by using an algorithm (see column 22, lines 59-65 and see fig.1, Service Control Point 18 reads on Applicant's "control node").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Connolly into the system of Anvekar in order to allow the users to freely move from one cell to another without interrupting the user's call within one switching network (see Connolly, column 2, lines 19-21).

Regarding claims 2, 10, 15, 28 and 34, Anvekar further teaches receiving a message regarding wireless sessions being managed by a serving node in the cluster (see column 10, lines 10-13), and updating a database containing

information regarding wireless sessions being managed by serving nodes in the cluster (see column 7, lines 60-62 and column 12, lines 11-13).

Regarding claims 4 and 17, Anvekar further teaches determining whether a serving node in the cluster is managing a wireless session associated with the registration request if the control node is the control node associated with the registration request (see column 11, lines 51-54), and generating a wireless registration response containing an identifier for the serving node managing the wireless session if a serving node in the cluster is managing a wireless session associated with the registration request (see column 2, lines 41-55).

Regarding claim 5, Anvekar further teaches a serving node in the cluster is managing a wireless session associated with the registration request (see column 11, lines 51-54) comprises accessing a database containing wireless session information for serving nodes in the cluster (see column 4, lines 25-32).

Regarding claim 6, Anvekar further teaches selecting a serving node in the cluster to manage the wireless session if the control node is the control node associated with the registration request (see column 10, lines 10-13), and generating a wireless registration response containing an identifier for the selected serving node (see column 2, lines 41-55).

Regarding claim 12, Anvekar further teaches determining a control node associated with the registration request by using a mobile unit identifier in the registration request further comprises performing a modulo operation on the mobile unit identifier (see column 2, lines 41-55, the teaching of Anvekar inherently teaches a mobile unit identifier), using a number associated with the

loading between clusters as the basis for the operation and the remainder of operation as an index into a database containing identifiers for control nodes (see column 13, line 65 to column 14, line 18).

Anvekar does not specifically disclose determining a control node associated with the registration request by using an algorithm.

Connolly teaches determining a control node associated with the registration request by using an algorithm (see column 22, lines 59-65 and see fig.1, Service Control Point 18 reads on Applicant's "control node").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Connolly into the system of Anvekar in order to allow the users to freely move from one cell to another without interrupting the user's call within one switching network (see Connolly, column 2, lines 19-21).

Regarding claim 18, Anvekar further teaches a serving node in the cluster is managing a wireless session associated with the registration request comprises accessing a database containing wireless session information for serving nodes in the cluster (see column 13, line 65 to column 14, line 18).

Regarding claim 19, Anvekar further teaches selecting a serving node in the cluster to manage the wireless session if the control node is the control node associated with the registration request (see column 2, lines 41-55), and generate a wireless registration response containing an identifier for the selected serving node (see column 13, line 65 to column 14, line 18).

Regarding claim 23, Anvekar further teaches the logic is further operable to: receive a message regarding a control node of another cluster, and update a database containing information regarding control nodes (see column 7, lines 60-63), the database containing identifiers for control nodes (see column 2, lines 41-55).

Regarding claim 39, Anvekar teaches a system for identifying a wireless serving node for a mobile unit (see fig.5), comprising: a serving node cluster comprising: a plurality of wireless serving nodes (see column 18, lines 5-60), each serving node operable to manage a plurality of wireless sessions (fig.5, see wireless connections), a control node operable to: receive a wireless registration request for the cluster (see column 2, lines 41-55), determine a control node associated with the registration request by using a mobile unit identifier in the registration request (see column 2, lines 41-55, the teaching of Anvekar inherently teaches a mobile unit identifier), and generate a wireless registration response containing an identifier for the control node associated with the registration request if it is not the control node associated with the registration request (see column 2, lines 41-55), and a communication network coupled to the serving nodes and the control node (see fig.5, connection between network 130, node 520-B and 110B), the communication network allowing the serving nodes and the control node to exchange data (see fig.5, communication between networks 130, 540, node 520-B and 110B).

Anvekar does not specifically disclose determining a control node associated with the registration request by using an algorithm.

Connolly teaches determining a control node associated with the registration request by using an algorithm (see column 22, lines 59-65 and see fig.1, Service Control Point 18 reads on Applicant's "control node").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Connolly into the system of Anvekar in order to allow the users to freely move from one cell to another without interrupting the user's call within one switching network (see Connolly, column 2, lines 19-21).

Regarding claim 40, Anvekar further teaches receiving a message regarding wireless sessions being managed by one of the serving nodes (see column 10, lines 10-13), and update a database containing information regarding wireless sessions being managed by serving nodes in the cluster (see column 7, lines 60-62 and column 12, lines 11-13).

Regarding claim 44, Anvekar further teaches the logic is further operable to: receive a message regarding a control node of another cluster, and update a database containing information regarding control nodes (see column 7, lines 60-63), the database containing identifiers for control nodes (see column 2, lines 41-55).

Regarding claim 46, Anvekar further teaches determining a control node associated with the registration request by using a mobile unit identifier in the registration request further comprises performing a modulo operation on the mobile unit identifier (see column 2, lines 41-55, the teaching of Anvekar inherently teaches a mobile unit identifier), using a number associated with the

loading between clusters as the basis for the operation and the remainder of operation as an index into a database containing identifiers for control nodes (see column 13, line 65 to column 14, line 18).

Anvekar does not specifically disclose determining a control node associated with the registration request by using an algorithm.

Connolly teaches determining a control node associated with the registration request by using an algorithm (see column 22, lines 59-65 and see fig.1, Service Control Point 18 reads on Applicant's "control node").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Connolly into the system of Anvekar in order to allow the users to freely move from one cell to another without interrupting the user's call within one switching network (see Connolly, column 2, lines 19-21).

4. Claims 3, 16 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anvekar et al (US 6,603,968) in view of Connolly et al (US 5,657,375) and further in view of Helander (US 6,728,237).

Regarding claims 3, 16 and 29, the combination of Anvekar and Connolly teaches the method of claims 1 and 2. The combination of Anvekar and Connolly does not specifically disclose receiving messages regarding load and wireless sessions for every serving node in the cluster.

Helander teaches receiving messages regarding load and wireless sessions for every serving node in the cluster (see column 3, lines 20-30).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Helander into the system of Anvekar and Connolly in order to provide a method of controlling the load distribution in an arrangement or in a node in a communication system (see Helander, column 1, lines 10-13).

5. Claims 7, 20, 41 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anvekar et al (US 6,603,968) in view of Connolly et al (US 5,657,375) and further in view of Thomas (US 6,014,558).

Regarding claims 7, 20, 41 and 42, the combination of Anvekar and Connolly teaches the method of claims 1 and 2. The combination of Anvekar and Connolly does not specifically disclose selecting a serving node in the cluster to manage the wireless session comprises maintaining load balancing between the serving nodes.

Thomas teaches selecting a serving node in the cluster to manage the wireless session comprises maintaining load balancing between the serving nodes (see column 3, lines 43-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Thomas into the system of of Anvekar and Connolly in order to determine a capacity constrain of at least one node of the network (see Thomas, see column 3, lines 43-55).

6. Claims 9, 22 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anvekar et al (US 6,603,968) in view of Connolly et al (US 5,657,375) and further in view of Choi et al (US 2003/0053430A1).

Regarding claims 9, 22 and 33, the combination of Anvekar and Connolly teaches the method of claims 1 and 2. The combination of Anvekar and Connolly does not specifically disclose the registration request comprises an All-Registration Request.

Choi teaches the registration request comprises an All-Registration Request (see page 2, [0020] and [0033]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Choi into the system of Anvekar and Connolly in order to provide high-speed/high-quality real-time data services without data loss in an active packet mode (see Thomas, page 1, [0001]).

7. Claims 13, 26 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anvekar et al (US 6,603,968) in view of Connolly et al (US 5,657,375) and further in view of Huang et al (US 6,041,358).

Regarding claims 13, 26 and 37, the combination of Anvekar and Connolly teaches the method of claim 1. The combination of Anvekar and Connolly does not specifically disclose the identifier of the associated control node is an Internet protocol address.

Huang teaches the identifier of the associated control node is an Internet protocol address (see column 2, line 65 to column 3, line 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Huang into the system of Anvekar and Connolly so that the packet can be transmitted according to the appropriate data-link layer protocol.

8. Claims 11, 24, 35 and 45are rejected under 35 U.S.C. 103(a) as being unpatentable over Anvekar et al (US 6,603,968) in view of Connolly et al (US 5,657,375) and further in view of Sarkar et al (US 6,728,300).

Regarding claims 11, 24, 35 and 45, Anvekar teaches determining a control node associated with the registration request by using a mobile unit identifier (see column 2, lines 41-55, the teaching of Anvekar inherently teaches a mobile unit identifier).

Anvekar does not specifically disclose determining a control node associated with the registration request by using an algorithm.

Connolly teaches determining a control node associated with the registration request by using an algorithm (see column 22, lines 59-65 and see fig.1, Service Control Point 18 reads on Applicant's "control node").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Connolly into the system of Anvekar in order to allow the users to freely move from one cell to

another without interrupting the user's call within one switching network (see Connolly, column 2, lines 19-21).

The combination of Anvekar and Connolly does not specifically disclose determining the registration request comprises performing a hash function on the mobile unit identifier.

Sarkar teaches the registration request comprises performing a hash function on the mobile unit identifier (see column 5, lines 58-63).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Choi into the system of Anvekar and Connolly in order to provide method and apparatus for increasing the standby time of the receiver of broadcast databurst message in a wireless telecommunication system (see Sarkar, column 1, lines 11-15).

9. Claims 25 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anvekar et al (US 6,603,968) in view of Connolly et al (US 5,657,375) and further in view of Sarkar et al (US 6,728,300) and Thomas (US 6,014,558).

Regarding claims 25 and 36, the combination of Anvekar, Connolly and Sarkar teaches determining a control node associated with the registration request by using an algorithm a mobile unit identifier in the registration request further comprises performing a modulo operation on the mobile unit identifier (see Connolly, column 22, lines 59-65 and see fig.1, Service Control Point 18 reads on Applicant's "control node").

The combination of Anvekar, Connolly and Sarkar does not specifically using a number associated with the loading between clusters as the basis for the operation and the remainder of the operation as an index into a database containing identifiers for control nodes.

Thomas teaches using a number associated with the loading between clusters as the basis for the operation and the remainder of the operation as an index into a database containing identifiers for control nodes (see column 3, lines 43-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Thomas into the system of Anvekar, Connolly and Sarkar in order to determine a capacity constrain of at least one node of the network (see Thomas, see column 3, lines 43-55).

10. Claim 47 is rejected under 35 U.S.C. 103(a) as being unpatentable over Anvekar et al (US 6,603,968) in view of Connolly et al (US 5,657,375) and further in view of Comroe et al (US 4,926,495).

Regarding claim 47, the combination Anvekar and Connolly teaches the method of claim 39. The combination Anvekar and Connolly does not specifically disclose a second control node, the second control node serving as a back-up to the control node.

Comroe teaches a second control node, the second control node serving as a back-up to the control node (see column 6, lines 23-47).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Comroe into the system of Anvekar and Connolly in order to provide an improved trunked communication system (see Comroe, column, 3, lines 18-19).

11. Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Anvekar et al (US 6,603,968) in view of Connolly et al (US 5,657,375) and further in view of Comroe et al (US 4,926,495) and Hoefelmeyer et al (US 6,385,204).

Regarding claim 48, the combination of Anvekar, Connolly and Comroe teaches the second control node serves as a back-up (see Comroe, column 6, lines 23-47). The combination of Anvekar, Connolly and Comroe does not specifically disclose the node according to the Hot Standby Router Protocol.

Hoefelmeyer teaches the node according to the Hot Standby Router Protocol (se column 12, lines 14-39).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Hoefelmeyer into the system of Anvekar, Connolly and Comroe in order to implement a call processing application across a plurality of local area network.

Allowable Subject Matter

12. Claims 8, 21, 30-32 and 43 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 8, 21, 30-32 and 43, claims 8, 21, 30 and 43 are objected for the reasons as stated in the previous Office action dated 02/18/2005 (pages 12-13).

13. Claim 38 is allowed.

Regarding claim 38, claim 38 is allowed for the reasons as stated in the previous Office action dated 02/18/2005 (pages 13-15).

Response to Arguments

14. Applicant's arguments with respect to claims 1-7, 9-20, 22-29, 33-37, 39-42 and 44-48 have been considered but are moot in view of the new ground(s) of rejection.

On page 16 of Applicant's remarks, Applicant argues that the combination fails to teach each limitation recited in claims 3, 7, 9, 13, 16, 20, 22, 24-26, 29, 33, 35-37, 41, 42, 45, 47 and 48.

In response, the combination indeed teaches each limitation recited in claims 3, 7, 9, 13, 16, 20, 22, 24-26, 29, 33, 35-37, 41, 42, 45, 47 and 48. In addition, Applicant attention is directed to the rejection of claims 3, 7, 9, 13, 16, 20, 22, 24-26, 29, 33, 35-37, 41, 42, 45, 47 and 48 above.

Conclusion

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nghi H. Ly whose telephone number is (703)

605-5164. The examiner can normally be reached on 8:30 am-5:30 pm Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on (703) 305-4379. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nghi H. Ly

08/19/05

CHARLES APPIAH
PRIMARY EXAMINER